DESCRIPTION AMENDMENTS

Rewrite the paragraph beginning on page 2, line 11, to read as follows:

Accordingly the present invention provides a simple method for demultiplexing a statistically multiplexed MPEG transport stream into CBR single program transport streams without recoding or modifying the video in any way. The method starts sending a picture to a system target decoder buffer at time that is a fixed interval, on the order of tens to hundreds of milliseconds, before it is to be decoded or as soon thereafter as possible. A separate logical smoothing buffer is used ~~for~~ to store each variable bit rate single program transport ~~stream.~~ stream until such a time. When the decode time arrives the picture is transferred from the decoder buffer for decoding. In the event there is decoder buffer overflow, B-type frame are replaced with null B-type frames, which has the effect of a freeze frame by repeating the prior decoded picture, until the overflow condition ceases.

Rewrite the paragraph beginning on page 3, line 18, to read as follows:

Fig. 3 is an illustrative timing view showing the loading of the pictures into the ~~smoothing~~ decoder buffer at the constant bit rate starting at a fixed time prior to the decode time, or as soon as possible thereafter, according to the present invention.

Rewrite the paragraph beginning on page 4, line 4, to read as follows:

The SPTS (VBR) is separated from the MPTS based upon the packet PIDs, and is input to a logical smoothing buffer. The SPTS is then transferred from the smoothing buffer at the desired constant bit rate to produce an SPTS having a Constant Bit Rate (CBR). The SPTS (CBR) is intended to be received by a downstream system target decoder buffer and may then be decoded at the time indicated by the decode time stamp (DTS) for each frame to recover the original images in the video stream.

Rewrite the paragraph beginning on page 4, line 10, to read as follows:

As shown in Fig. 2 for an SPTS (VBR) that has an Average Bit Rate less than the desired CBR, there may be times when the SPTS (VBR) exceeds the desired CBR. During such times and in the absence of the present invention this could cause a downstream decoder's buffer to overflow and thus pictures received by the decoder would not be decoded. This would result in the decoder repeatedly outputting the last successfully decoded frame until the overflow condition ends and the next frame is available for the decoder at the time indicated by the frame's associated decode time stamp (DTS). To reduce the likelihood of an occurrence of this undesired anomaly, the solution according to the present invention is to start loading the ~~smoothing~~ downstream decoder's buffer early with the packets for a frame so that when the frame's decode time comes, the full data for the frame is available for decoding, as illustrated in Fig. 2 and described in more detail below.

Rewrite the paragraph beginning on page 4, line 21, to read as follows:

~~Buf_n represents the smoothing buffer for variable~~ Variable bit rate (VBR) elementary stream *n* within a statistically multiplexed MPEG transport stream ~~(MPTS).~~ (MPTS) is being sent to a system target decoder buffer Buf_n. The variable $td_n(j)$ is a decode time for the j'th picture of the video elementary stream *n* in ~~a system~~ the system target decoder. Decode time is measured in seconds and is with respect to a system clock PCR for the program containing elementary stream *n*. The variable $t_n^i(j)$ is a time at which the i'th transport stream (TS) packet of the j'th picture of elementary stream *n* enters the ~~smoothing~~ system target decoder buffer Buf_n. Again time is measured in seconds and is with respect to the system clock for the program containing elementary stream *n*. R_n is based on the desired bit rate shown in Fig. 2 -- it is the desired bit rate less the bit rate of the packets in the SPTS not carrying video. R_n is a constant rate at which the TS packets with the video elementary stream *n* enter the ~~smoothing~~ system target decoder buffer Buf_n. The rate is given in units of bits per second. Finally d_n is the earliest time before the decode time that a

video electuary stream TS packet can enter the ~~smoothing~~ system target decoder buffer Buf_n. Again time is given in seconds.

Rewrite the paragraph beginning on page 6, line 11, to read as follows:

The above is illustrated in Fig. 3 where a series of ~~frames~~ pictures, or frames, of variable bit rates is shown. At time δ before the DTS for frame 1, frame 1 is loaded into the system target decoder buffer. The system target decoder buffer may be thought of as having a plurality of equal capacity slots between consecutive DTS times. Since frame 1 has fewer bits than the capacity of one slot, there is a gap before frame 2 is loaded into the decoder buffer, again time δ before the DTS for frame 2. Likewise frame 3 is loaded at time δ before DTS_3. Frame 3 has more bits than fit into one slot, so ~~that~~ frame 4 is loaded into the decoder buffer as soon as possible thereafter. Then frame 5 is loaded into the decoder buffer as soon as ~~possible.~~ possible (i.e. as soon as frame 4 is done loading). The end of frame 5 almost exceeds the DTS time for frame 5 and the decoder buffer is in danger of overflowing. However the next few frames 6, 7 and 8 each have fewer bits than one slot so ~~that~~ the capacity of the decoder buffer is alleviated.

Rewrite the paragraph beginning on page 6, line 23, to read as follows:

Thus the present invention provides for demultiplexing a statistically multiplexed MPEG transport stream into a constant bit rate single program transport stream using a smoothing buffer with the video pictures in the stream being loaded from the smoothing buffer into the ~~smoothing~~ decoder buffer at the desired constant bit relate as early as possible up to a fixed time interval before the pictures need to be decoded.